3COM SWITCH S7900E FAMILY

A modern high-performance modular switching and routing platform for demanding Enterprise environments, supporting highly available, secure and converged business applications

Front left to right S7902E, S7903E-S. Back, left to right S7903E, S7506E, S7906E-V and S7910E

OVERVIEW

The 3Com® Switch S7900E family is the next generation of modern multilayer switches that meet the evolving needs of integrated service networks.

The S7900E family consists of six chassis models: S7910E (12 slots), S7906E (8 slots), S7906E-V (8 vertical slots), S7903E (5 slots), S7902E (4 slots) and S7903E-S (3 slots).

The platform uses modern ASICs and high speed backplanes for long term investment protection.

All models have passive backplanes and support load sharing and redundant management and fabrics for high availability (except the S7903E-S with a single fabric for cost-effective solution). The S7900E can be deployed in multiple network environments, such as; enterprise LAN core, aggregation and wiring closet edge as well convergence and edge of Metropolitan Area Networks (MANs), The S7900E provides the latest distributed ASIC switching technology enabling wire-speed Layer 2 and Layer 3 routing services for the most demanding applications.

The S7900E supports high reliability technologies such as non-stop forwarding (NSF), and ring network protection. By improving productivity and ensuring maximum up time, the S7900E can reduce total cost of ownership (TCO). The S7900E family is environmentally friendly, meeting the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) standards.

KEY BENEFITS

MODERN ARCHITECTURE

The S7900E chassis has been designed to allow for long term investment protection. The backplane traces will allow for higher performance in the future. Intelligent power and environmental management make these changes possible. The system uses a new generation of more energy efficient merchant silicon, with future support for emerging standards. This will allow the implementation of new features in the future, as they become available. With a choice of six different chassis, users have increased configuration flexibility. Fabrics and modules can be used across all chassis.

EXTENSIVE FEATURE LIST

The S7900E provides all the features expected in a high end modular chassis used for demanding enterprise core, distribution and aggregation applications. It supports wire-speed communications at layer 2 and for IPv4 and IPv6 as well as MPLS services.

› Separate data and control paths for added security and performance

› Extensive Quality of Service (QoS) features for mission critical applications including Voice over IP (VoIP), storage and video

› Comprehensive security for network access control, encryption and protection of corporate resources.

> Extensive high availability capabilities and the ability to create a resilient virtual switching fabric using IRF™ (Intelligent Resilient Framework) technology.

3com®

KEY BENEFITS (continued)

- Extensive CLI capabilities as well as Web-based management and GUI.
- An open, standards-based architecture to enable seamless growth and future investments without proprietary lock-ins. The use of standards also guarantees complete interoperability with other network devices.
- Working as a Multi-Customer-Edge (MCE) Supporting L3 and L2 (Martini, Kompella) MPLS VPN, which can be extended to support Virtual Private LAN Service (VPLS).

RESILIENT ARCHITECTURE FOR BUSINESS CONTINUITY

The S7900E chassis have a high availability design including passive backplane, redundant/load sharing fabrics and management modules and redundant fans and power supplies. All elements in the system can be hot swapped, minimizing the impact of single component failure. Changes in network topology due to device or link failures can lead to disruption of service for critical business applications. Rapid recovery from such topology changes is achieved through features such as Multiple Spanning Tree Protocol (MSTP), Rapid Spanning Tree Protocol (RSTP), OSPF Equal Cost Multi Path (ECMP) and Virtual Router Redundancy Protocol (VRRP).

The S7900E supports IRF technology, an innovative resilient virtual switching fabric, which enables two chassis to operate as a single entity for management, Layer 2 switching and Layer 3 routing. These capabilities are available even when the two chassis are in different geographic locations, to support disaster recovery applications.

The S7900E also supports Resilient Ring Protection Protocol (RRPP), which allows the creation of fast recovery rings using standard Ethernet technology.

CONVERGED NETWORK SUPPORT

Real-time applications such as Voice over IP demand high QoS and different-iated service levels to function properly. The 3Com S7900E provides robust QoS and advanced traffic management features, allowing critical applications to be prioritized and serviced as the needs of the organization dictate.

Additionally, the S7900E supports the industry-standard IEEE 802.3af Power over Ethernet (PoE) to provide both electrical power and network connectivity to PoE-capable devices such as IP telephones and wireless access points, making the switches ideal for large-scale edge deployments. PoE simplifies network deployments by eliminating the need for separate data and power infrastructures.

The S7900E supports flexible PoE solutions including hybrid power which provides power to the switch and the Ethernet ports to support a range of devices.

EXTENSIVE SECURITY FEATURES

Security is paramount in today's enterprise. The 3Com S7900E family has advanced security features including user and device authentication, policy-driven and bi-directional hardware-based and wirespeed access control lists (ACLs), encrypted protocol headers and system management access. The S7900E supports IEEE 802.1x Network Login along with RADIUS to allow user access control. Port, VLAN and MAC address authentication allow for additional security.

The advanced capabilities of the 3Com S7900E family can be further extended with included support for service application modules, which enables direct integration of advanced Firewall and IPSec VPN, L4-L7 load balancing, network traffic analysis, wireless access control and management and SSL VPN services.

SCALABLE PERFORMANCE

The S7910E has a 2.4 Tbps backplane for media rate performances and future expansion. The S7910E with dual fabrics supports up to 714 Mpps. The wide selection of modules provide up to 84 10 Gigabit Ethernet ports and 504 Gigabit Ethernet ports. Flexible modules combine 10 Gigabit Ethernet and Gigabit in a single module. The S7900E provides fully distributed L2 and L3 switching with all processing local to the module. Standards-based link aggregation allows aggregating multiple links together as a "trunk". Link aggregation is supported across modules. All fiber-based Gigabit modules support both 100BASE-FX and 1000BASE-X transceivers.

ENTERPRISE CLASS MANAGEMENT

The S7900E features independent data and control paths. The dedicated data channel provides high-speed data switching and packet forwarding, while a separate management channel provides control, monitoring, route learning and distribution. A comprehensive set of management features allows the S7900E to provide enterprise-wide visibility and control to IT staff for configuration, network monitoring and advanced troubleshooting.

KEY BENEFITS (continued)

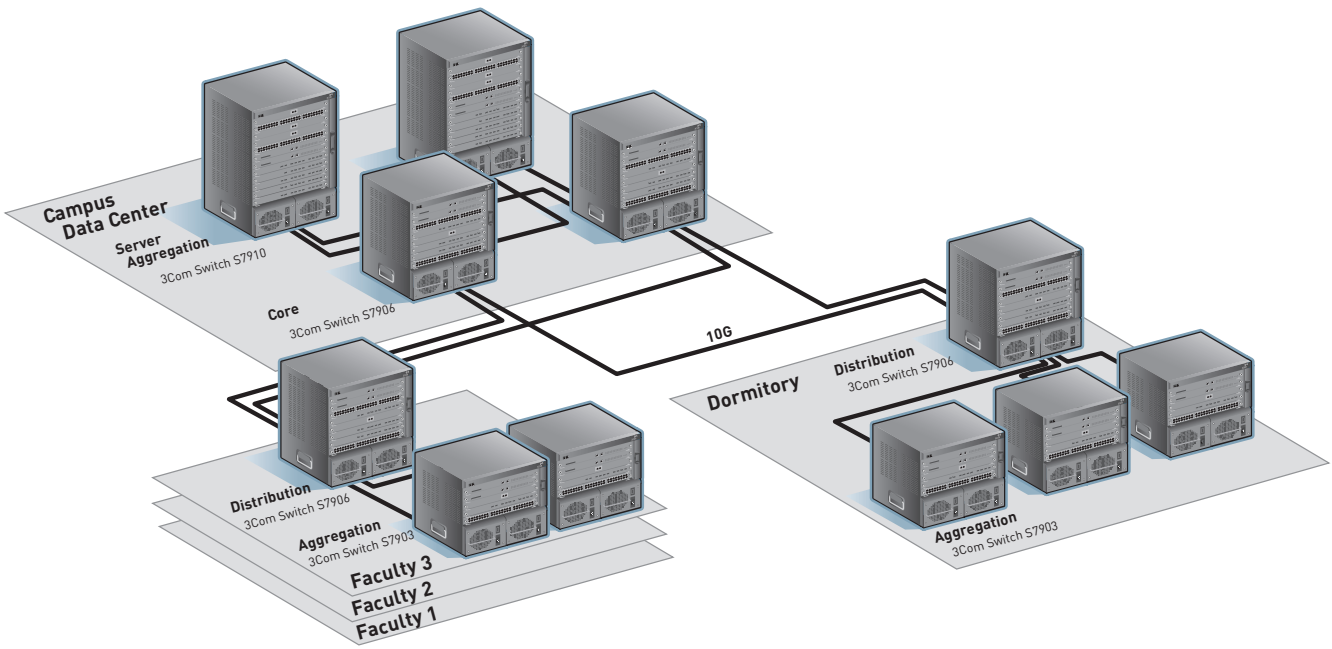
Management features are accessible through an industry standard Command Line Interface (CLI), an intuitive Graphical User Interface (GUI), a Web-based Interface as well as SNMP, with hierarchical access controls and password protection. Additional management security is provided using the user authentication and encryption capabilities of SNMPv3 and SSHv2, further reducing the likelihood of unauthorized access or snooping of management traffic.

FEATURE SUMMARY

Modern modular multilayer switch with flexible, resilient architecture for deployment in enterprise core, distribution and edge applications
High density 10 Gigabit Ethernet (up to 84 ports) and Gigabit (up to 504 Fiber ports)
Up to 2.4 Tbps backplane capacity with up to 714 Mpps system throughput
Virtually non-stop operation with redundant load sharing fabrics and management modules, redundant power supplies, as well as hot swappable modules. Supports IRF technology, which enables the creation of a resilient virtual switching fabric, and fast recovery Resilient Ring Protection Protocol (RRPP) for highly available enterprise networks and MAN applications
Granular QoS and traffic management for enhanced availability
Extensive L2/L3/L4 switching and routing capability, including RIP, OSPF, BGP-4, IS-IS and IPv6. IPv6 support include dual stack, tunneling and IPv6 ACLs
Supports L2 Martini, Kompella)/L3 MPLS VPN and MCE
Robust network access control via IEEE802.1x and RADIUS, extensive ACLs, as well as authentication and encryption of management traffic
Innovative and scalable service modules offers Firewall and IPSec VPN, L4-L7 load balancing, network traffic analysis, wireless access control and management and SSL VPN remote access services.

TYPICAL HIERARCHICAL NETWORK

UNIVERSITY CAMPUS



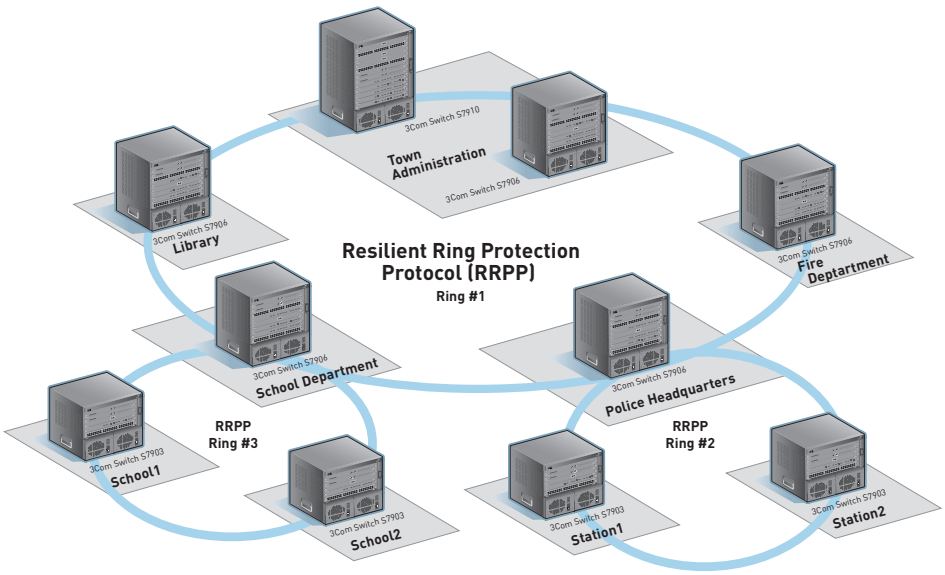
This large university has a typical hierarchical network, with 10 Gigabit links between all core and distribution switches. The campus core uses S7906E switches with redundant 10 Gigabit Ethernet links to all other systems.

The campus data center uses load sharing fabrics with integral 10 Gigabit Ethernet ports in a S7910E chassis. They use media rate 48-port 10/100/1000BASE-T modules to connect to servers.

The faculty and dormitory distribution switches use load sharing fabrics with integral 10 Gigabit Ethernet ports

Extensive security has been provisioned throughout the dormitories, including traffic bandwidth management.

MEDIUM-SIZED CITY METROPOLITAN AREA NETWORK (MAN)



This Metropolitan Area Network (MAN) takes advantage of the performance and resiliency of the Resilient Ring Protection Protocol (RRPP) to build their network. RRPP has very fast recovery times and provides for multiple attached rings.

SPECIFICATIONS

All information in this section is applicable to all members of the S7900E family, unless stated otherwise

CAPACITIES AND PERFORMANCES

S7910E
Two slots for switch fabrics, ten payload slots
Backplane: 2.4 Tbps max.
Bandwidth: 1,536 Gbps max. (dual fabric)
768 Gbps max. (single fabric)
Throughput, aggregate: 714 Mpps, max.

S7906E
Two slots for switch fabrics, six payload slots
Backplane: 1.6 Tbps max.
Bandwidth: 768 Gbps max. (dual fabric)
384 Gbps max. (single fabric)
Throughput, aggregate: 488 Mpps, max.

S7906E-V
Two slots for switch fabrics, six payload slots
Backplane: 1.6 Tbps max.
Bandwidth: 768 Gbps max. (dual fabric)
384 Gbps max. (single fabric)
Throughput, aggregate: 488 Mpps, max.

S7903E
Two slots for switch fabrics, three payload slots
Backplane: 1.0 Tbps max.
Bandwidth: 480 Gbps max. (dual fabric)
240 Gbps max. (single fabric)
Throughput, aggregate: 274 Mpps, max.

S7903E-S
One slot for switch fabric, two payload slots
Backplane: 600 Gbps max.
Bandwidth: 288 Gbps max. (single fabric)
Throughput: aggregate: 178 Mpps, max.

S7902E
Two slots for management modules, two payload slots
Backplane: 400 Gbps max.
Bandwidth: 192 Gbps max. (dual fabric)
96 Gbps max. (single fabric)
Throughput, aggregate: 143 Mpps, max.

LAYER 2 SWITCHING

512K MAC addresses per system (Enhanced modules only) or 256K MAC addresses per system (EA and SD modules)
4096 VLANs (IEEE 802.1Q)
Port-based, protocol-based (IEEE 802.1v) and subnet-based VLANs
Dynamic VLAN assignments
Guest VLANs
Voice VLANs
Multicast VLANs
Private VLANs
RFC 3069 SuperVLANs
IEEE 802.1ad Q-inQ and VLAN mapping
GVRP (GARP VLAN Registration Protocol)
IEEE 802.3ad Link Aggregation, across modules, 128 groups of 8 ports
IEEE 802.3 (10BASE-T), 802.3u (100BASE-T,100BASE-FX)
IEEE 802.3z (1000BASE-X), 802.3ab (1000BASE-T)
IEEE 802.3ae (10GBASE-X)
IEEE 802.3x (Traffic control)
IEEE 802.3af (PoE)Auto-negotiation of port speed and duplex
Auto MDI/MDI-X
Broadcast, multicast and unknown unicast storm protection
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1s Multiple Spanning Tree Protocol Instances (MSTP)
BPDU Protection
UDLD(Uni-Directional Link Detection)
Jumbo frames up to 9KB
Resilient Ring Protection Protocol (RRPP)
RRPP over Link Aggregation
DLDP
LLDP
LLDP-MED
HGMP
SmartLink
SmartLink over Link Aggregation

LAYER 3 SWITCHING

Max. 128K IPv4 routes (Advanced, Extended and Enhanced modules or 768 Gbps fabric only)
Static Routes
RIPv1 and v2, supports split horizon and poison reverse
OSPFv1 and v2
ECMP 8 paths
BGP-4
IS-IS
Policy based routing
Graceful Restart for OSPF, BGP and IS-IS
Tunnel interface (Only for OSI)
IGMPv1, v2 and v3

SPECIFICATIONS (continued)

IGMP Snooping
IGMP Fast leave
PIM-DM and SM (Protocol Independent Multicast, Dense mode and Sparse mode)
MSDP (Multicast Source Discovery Protocol)
PIM-SSM
MSDP (Multicast Source Discovery Protocol)
MLDv1,v2
MLDv1,v2 Snooping
Static Multicast ARP
Static Multicast MAC Anycast-RP
DHCP Client and Server
DHCP Relay
DHCP option 82
TCP/IP Protocol stack
UDP Helper
VRRP (Virtual Router Redundancy Protocol); 128 groups, 15 virtual IP addresses (VIP) per group
IPv6 Addressing architecture
Site-local, link-local and global unicast addresses
IPv6 multicast addresses
IPv6 specification
Transmission of Ipv6 over Ethernet
IPv6 neighbor discovery
IPv6 duplicate address detection
IPv6 stateless address autoconfiguration
IPv6 path MTU discovery
ICMPv6
ICMPv6 redirection
DHCPv6
RIPng
OSPFv3
BGP-4+ for IPv6
IS-ISv6
VRRPv3
ECMP 8 paths
PIMv6 DM and SM
Dual stack architecture
Configured tunnels
IPv6 to IPv4 tunnels
ISATAP tunnels
ACLs for IPv6
DNSv6
Telnet6
Ping and traceroute v6

MPLS
MPLS forwarding
MPLS-TE
VPLS
LSP
LDP
L2 VPN: VLL (Martini, Kompella)
L3 VPN
MCE
VRF (250 instances)
Multi-VRF
MPLS OAM

CONVERGENCE FEATURES
8 hardware queues per port (Gigabit and 10-Gigabit ports)
IEEE 802.1p VLAN priority
Standard and VLAN-based ACLs (up to 12,000 ACL per I/O module)
Ingress and Egress ACLs
Egress CAR (SC Module only), Traffic Shaping
Queue scheduling including SP, WRR, SP+WRR and CDWFQ
IP precedence packet labeling
Congestion avoidance including tail-drop and WRED

SECURITY FEATURES
RIPv2, OSPF and BGPv4 plain text and MD5 cipher text authentication
IEEE 802.1X Network Login
MAC and RADIUS authentication
Web Authentication
SSHv1.5/SSHv2
TACACS+
SNMPv3 with encryption ARP Detection

SERVICE APPLICATION
Firewall plus site-to-site and remote access IPSec VPN (via SecBlade VPN Firewall module)
Remote access SSL VPN (via SecBlade SSL VPN module)
Network traffic monitor and analysis (via SecBlade Netstream module)
Load Balancing (via SecBlade load balancing module)
Wireless LAN Access and Control (via wireless access control module)

MANAGEMENT
Web-based Management
Industry Standard CLI (Command Line Interface)
Configuration via console port, dial-up modem or in-band
Local/ Remote configuration via Telnet
SNMPv1, v2 and v3
Port mirroring, 1:1, N:1, N:4
Remote port monitoring
RMON (4 groups)
IEEE 802.1ag (Service OAM)
Syslog
sFLOW
VFS
Hierarchical alarms
NQA (Network Quality Assurance)
NTP (Network Time protocol)
FTP
TFTP
SFTP
Configuration files for backup and restore.
Graphical User Interface using Switch Manager
3Com Enterprise Management Suite (EMS)
3Com Network Director (ND)

DIMENSIONS

S7910E
Height: 70.8 cm (28.1 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 96 kg (211 lb)

S7906E
Height: 57.5 cm (22.8 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 77 kg (169 lb)

S7906E-V
Height: 93.0 cm (36.9 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 94 kg (207 lb)

S7903E
Height: 44.1 cm (17.3 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 63 kg (139 lb)

S7903E-S
Height: 17.5 cm (6.9 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 27 kg (59 lb)

S7902E
Height: 17.5 cm (6.9 in)
Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)
Weight: 27 kg (59 lb)

POWER SUPPLIES

6000W AC Power Supply
Input Voltage: 100V to 240V auto ranging
Operating frequency: 47-63 Hz
Maximum data output: 1150W (110V), 1400W (220V)
Maximum PoE output: 3600W (110V), 5300W (220V)
This power supply uses four power cords
Max current per power cord for data output:
10.45 A at 110VAC, 6.36 A at 200VAC
Max current per power cord for POE output:
10.91 A at 110VAC, 8.03 A at 200VAC

2800W AC Power Supply
Input voltage: 100V to 240V auto ranging
Operating frequency: 47-63 Hz

SPECIFICATIONS (continued)

Maximum data output: 1150W (110V), 1400W (220V)
Maximum PoE output: 1150W (110V), 1400W (220V)
This power supply uses two power cords
Max current per power cord: 10.45 A at 110VAC, 7.0 A at 200 VAC

1400W AC Power Supply
Input voltage: 100V to 240V auto ranging
Operating frequency: 47-63 Hz
Maximum data output: 1150W (110V), 1400W (220V)
Max current: 10.45A at 110VAC, 7.0A at 200 VAC
Data only

650W AC Power Supply
Input voltage: 100V to 240V auto ranging
Operating frequency: 47-63 Hz
Maximum data output: 650W
Max current: 5.9A at 110VAC, 3.25A at 200 VAC
Data only

300W AC Power Supply
Input voltage: 100V to 240V auto ranging
Operating frequency: 47-63 Hz
Maximum data output: 300W
Max current: 2.7A at 110VAC, 1.5A at 200 VAC
Data only

1400W DC Power Supply
Input voltage: -48 VDC to -60VDC
Maximum voltage range: -40VDC to -72VDC
Maximum output power: 1400W
Can be used for Data or PoE

650W DC Power Supply
Input voltage: -48 VDC to -60VDC
Maximum voltage range: -40VDC to -72VDC
Maximum output power: 650W
Data only

300W DC Power Supply
Input voltage: -48 VDC to -60VDC
Maximum voltage range: -40VDC to -72VDC
Maximum output power: 300W
Data only

ENVIRONMENTAL REQUIREMENTS
Operating temperature: 0°to 40°C (32°to 104°F)
Storage temperature: -10°to 70°C (14°to 158°F)
Humidity (operating and storage): 10% to 90% non-condensing

Heat dissipation
S7910E: 4,148 BTU/hr
S7906E: 2,746 BTU/hr
S7906E-V: 2,765 BTU/hr
S7903E: 1,651 BTU/hr
S7903E-S: 941 BTU/hr
S7902E 883 BTU/hr

IEEE STANDARDS SUPPORTED
IEEE 802.1D (STP)
IEEE 802.1p (COS)
IEEE 802.1Q (VLAN)
IEEE 802.1s (MSTP)
IEEE 802.1v (VLAN)
IEEE 802.1w (RSTP)
IEEE 802.1X (Security)
IEEE 802.3ab (Link aggregation)
IEEE 802.3ab (1000BASE-T)
IEEE 802.3ae (10GBASE-X)
IEEE 802.3af (PoE)
IEEE 802.1ag (Service OAM)
IEEE 802.3i (10BASE-T)
IEEE 802.3u (Fast Ethernet)
IEEE 802.3x (Flow control)
IEEE 802.3z (Gigabit)

IETF STANDARDS
RFC 768 (UDP)
RFC 791 (IP)
RFC 792/950 (ICMP)
RFC 793 (TCP)
RFC 826 (ARP)
RFC 919/922 (Broadcasting Ethernet Datagrams)
RFC 950 (IP subnetting)
RFC 951 (BOOTP)
RFC 959/2228 (FTP)
RFC 1058 (RIP)
RFC 1112 (IGMPv1)
RFC 1122 (IP Host Requirements
RFC 1141 (Internet Checksum)
RFC 1142 (OSI IS-IS)
RFC 1195 (IS-IS)
RFC 1256 (ICMP Router Discovery)
RFC 1305 (NTP)
RFC 1350 (TFTP)
RFC 1518/1519 (CIDR)
RFC 1542 (BOOTP)
RFC 1587/3101 (OSPF NSSA)
RFC 1723/2453 (RIPv2)
RFC 1765 (OSPF Database overflow)
RFC 1771 (BGP-4)
RFC 1812/2644 (IPv4)
RFC 1881/1887 (IPv6 Address Allocation)
RFC 1965/3065 (BGP AS Confederation)
RFC 1981 (Path MTU discovery for IPv6)
RFC 1997/1998 (BGP Communities)
RFC 2080 (RIPng)
RFC 2082 (RIPv2 MD5 Authentication)
RFC 2113 (Router Alert)
RFC 2131/3396 (DHCP)
RFC 2132 (DHCP Options)
RFC 2138/2865 (RADIUS)
RFC 2139/2866 (RADIUS Accounting)
RFC 2236 (IGMPv2)
RFC 2267/2827 (IP Spoofing)
RFC 2328 (OSPFv2)
RFC 2338/3768 (VRRP)
RFC 2362 (PIM-SM)
RFC 2370/3630 (OSPF Opaque LSA option)
RFC 2373/3513/4291 (IPv6 addressing architecture)
RFC 2375 (IPv6 Multicast Addresses)
RFC 2385 (BGP – MD5)
RFC 2439 (BGP Route flap dampening)
RFC 2452 (IPv6 TCP MIB)
RFC 2454 (IPv6 UDP MIB)
RFC 2460 (IPv6 Specification)
RFC 2461 (IPv6 Neighbor discovery)
RFC 2462 (IPv6 Stateless Address Autoconfiguration)
RFC 2463 (ICMPv6)
RFC 2464 (IPv6 over Ethernet)
RFC 2465 (IPv6 MIB)
RFC 2466 (ICMPv6 MIB)
RFC 2474 (DSCP)
RFC 2474/3168 (Diffserv)
RFC 2475 (Architecture for Diffserv)
RFC 2526 (IPv6 reserved Unicast Addresses)
RFC 2545 (BGP-4 for IPv6)
RFC 2553 (Basic sockets for IPv6)
RFC 2597 (AF PHB)
RFC 2598 (Expedited AF PHB)
RFC 2622 (Routing Policy)
RFC 2644 (Router Directed Broadcast)

SPECIFICATIONS (continued)

RFC 2697 (Single rate 3 color marker)
RFC 2698 (Two rate 3 color marker)
RFC 2715 (Multicast Routing Protocols)
RFC 2740 (OSPFv3)
RFC 2787 (VRRP MIB)
RFC 2796 (BGP Route reflection)
RFC 2858 (MBGP)
RFC 2868 (RADIUS Tunnels)
RFC 2869 (RADIUS Extensions)
RFC 2893 (Transition Mechanisms for IPv6)
RFC 2918 (BGP Route Refresh)
RFC 2918 (BGP-4 Route Refresh)
RFC 2973 (ISIS Mesh Groups)
RFC 3048 (DHCP Relay)
RFC 3056 (IPv6 6to4 tunnels)
RFC 3065 (BGP AS)
RFC 3069 (Super VLAN)
RFC 3101 (OSPF NSSA)
RFC 3131 (DHCP Relay)
RFC 3131 (DHCP)
RFC 3137 (OSPF Stub)
RFC 3153 (IPv6 Addressing)
RFC 3168 (ECN)
RFC 3277 (IS-IS black hole avoidance)
RFC 3307 (IPv6 multicast address allocation)
RFC 3358 (IS-IS Checksum)
RFC 3363 (IPv6 Addresses in DNS)
RFC 3376 (IGMPv3)
RFC 3392 (BGP Capabilities Advertisement)
RFC 3442 (DHCP)
RFC 3446 (Anycast RP)
RFC 3484 (IPv6 Default Address)
RFC 3596 (DNS extensions for IPv6)
RFC 3618 (MSDP)
RFC 3623 (OSPF Graceful Restart)
RFC 3768 (VRRP)
RFC 3973 (PIM-DM)
RFC 4213 (Basic Transition for IPv6 Hosts and Routers)

MANAGEMENT, INCLUDING MIB SUPPORT
RFC 1155 (SMIv1)
RFC 1155 (TCP MIB)
RFC 1157 (SNMPv1/v2c)
RFC 1213 (MIB-II)
RFC 1213/2011-2013 (MIB II)
RFC 1253 (OSPF MIB)
RFC 1253/1850 (OSPFv2 MIB)
RFC 1493 (Bridge MIB)
RFC 1493 (IEEE 802.1s MIB)
RFC 1573/2233/2863 (Private IF MIB)
RFC 1657 (BGP MIB)
RFC 1657 (BGP MIB)
RFC 1757 (RMON)
RFC 1774 (RIPv2 MIB)
RFC 2452 (Ipv6 MIB)
RFC 2454 (Ipv6 UDP MIB)

ISO
ISO 10589 (IS-IS)
ISO 9542 (ES-IS)

IETF DRAFTS
draft-IETF-ISIS-WG-MIB-13
draft-IETF-ISIS-ADMIN-TAGS-01
draft-IETF-NGTRANS-ISATAP

AGENCY APPROVALS
EMC EMISSIONS
CISPR 22 Class A
FCC Part 15 Subpart B Class A
EN 55022 Class A
ICES-003 Class A
AS/NZS CISPR22 Class A
EN 61000-3-2
EN 61000-3-3
VCCI Class A
ETSI EN 300 386

EMC IMMUNITY
EN 55024
CISPR 24
ETSI EN 300 386

SAFETY
UL 60950-1
IEC 60950-1
EN 60950-1
CAN/CSA-C22.2 No. 60950-1
AS/NZS 60950

WARRANTY AND OTHER SERVICES
Limited Hardware Warranty for one year. Limited Software Warranty for 90 days. 90 days free telephone technical support.
Refer to www.3com.com/warranty for details

SERVICE AND SUPPORT

3Com Global Services offers the resources and talents of a major corporation plus more than two decades of experience in resolving network challenges and delivering business benefits to enterprises around the world.

Global support with a personalized, local focus in the local language helps drive productivity and minimize expenses. Because 3Com understands both the technology and the business, we're the partner you need to remain strong and competitive.

Miercom CERTIFIED GREEN™

The 3Com 7906E is Certified Green in the 2009 Miercom Green Switches Industry Assessment.

AGGREGATE SYSTEM CAPACITIES

	SWITCH S7910E	SWITCH S7906E	SWITCH S7906E-V	SWITCH S7903E	SWITCH S7903E-S	SWITCH S7902E
CHASSIS SLOTS						
Total slots	12	8	8	5	3	4
I/O slots	10	6	6	3	2	2
PERFORMANCE						
Switching capacity	1,536 Gbps	768 Gbps	768 Gbps	480 Gbps	288 Gbps	192 Gbps
Backplane capacity	2.4 Tbps	1.6 Tbps	1.6 Tbps	1.0 Tbps	600 Gbps	400 Gbps
IPv4/IPv6 packet forwarding rate	714 Mpps	488 Mpps	488 Mpps	274 Mpps	178 Mpps	143 Mpps
TOTAL PORT CAPACITY						
10-Gigabit ports	84	52	52	28	16	16
Fiber Gigabit ports	504	288	288	144	104	96
Copper Gigabit ports	480	288	288	144	120	96
PoE-capable ports	yes	yes	yes	yes	yes	yes

Note: Maximum back plane bandwidth from modules to switch fabrics is 96 Gbps (full duplex) per slot

ORDERING INFORMATION

PRODUCT DESCRIPTION	3COM SKU
CHASSIS AND POWER	
3Com S7910E 10-slot Chassis Kit	3CS7910E
3Com S7906E-V 6-slot vertical Chassis kit	3CS7906EV
3Com S7906E 6-slot Chassis Kit	3CS7906E
3Com S7903E 3-slot Chassis Kit	3CS7903E
3Com S7903E-S 3-slot Chassis Kit	3CS7903ES
3Com S7902E 2-slot Chassis Kit	3CS7902E
S7500E/S7900E 6000W AC PS	0231A91H
S7500E/S7900E 2800W AC PS	0231A820
S7500E/S7900E 1400W AC PS	0231A81W
S7500E/S7900E 1400W DC PS	0231A79P
S7502E/S7902E 650W AC PS†	0231A81J
S7502E/S7902E 650W DC PS†	0231A79S
S7502E/S7902E 300W AC PS†	0231A91D
S7502E/S7902E 300W DC PS†	0231A919
SWITCH FABRICS	
3Com S7910E 768 Gbps Fabric	0231A998
3Com S7900E 384Gbps Fabric w/ 2 10GBASE-X (XFP)	0231A933
3Com S7900E 384 Gbps Fabric with 12 1000BASE-X (SFP)	0231A99A
3Com S7900E 384Gbps Switch Fabric	0231A934
3Com S7903E-S Fabric with 24-port 1000BASE-X (SFP)	0231A999
3Com S7902E Management Module	0231A92Y
10 GIGABIT MODULES	
S75E/S79E 8-port 10GBASE-X (XFP) Extended	0231A0AE
S75E/S79E 4-port 10GBASE-X (XFP) Enhanced	0231A973
S75E/S79E 4-port 10GBASE-X (XFP) Extended	0231A977
S75E/S79E 2-port 10GBASE-X (XFP) Enhanced	0231A974
S75E/S79E 2-port 10GBASE-X (XFP) Extended	0231A978
S75E/S79E 2-port 10GBASE-X (XFP) Extended + 24-port SFP	0231A971
S75E/S79E 2-Port 10GBASE-X (XFP)	0231A76Q
S75E/S79E 2-port 10GBASE-X (XFP) + 24-Port 1000BASE-X (SFP)	0231A76U
S75E/S79E 2-port 10GBASE-X (XFP) + 24-Port BT (RJ45)	0231A76V

†Also applies to S7503E-S and S7903E-S

PRODUCT DESCRIPTION	3COM SKU
GIGABIT MODULES	
S75E/S79E 48-port 1000BASE-X (SFP) Enhanced	0231A889
S75E/S79E 48-port 1000BASE-X (SFP) Extended	0231A99M
S75E/S79E 48-Port 1000BASE-X (SFP)	0231A80V
S75E/S79E 24-port 1000BASE-X (SFP) Enhanced w/ 8 Combo	0231A972
S75E/S79E 24-port 1000BASE-X (SFP) Extended w/ 8 Combo	0231A975
S75E/S79E 24-Port 1000BASE-X (SFP)	0231A76S
S75E/S79E 24-Port 1000BASE-X (SFP) w/ 8 Combo	0231A90F
S75E/S79E 12-Port 1000BASE-X (SFP)	0231A79J
S75E/S79E 48-port 10/100/1000BASE-T (RJ45) Extended POE+	0231A96F
S75E/S79E 48-Port 10/100/1000BASE-T (RJ45) , PoE ready	0231A80H
S75E/S79E 48-Port 10/100/1000BASE-T (RJ45) Access, PoE Ready	0231A76H
S75E/S79E 40-port BT (RJ45) + 8-port SFP, PoE Ready	0231A936
S75E/S79E 24-Port 10/100/1000BASE-T (RJ45)	0231A76T
SERVICE MODULES	
S7500E VPN FW Module	0231A832
S7500E Network Monitoring Module	0231A942
S7500E Load Balancer Module	0231A90N
S7500E SSL VPN Module	0231A93P
S7500E SSL VPN 1000 User License	3130A27M
S7500E SSL VPN 5000 User License	3130A27P
Wireless Controller Module	0231A81K
AP 128 User License	3130A0E2
ACCESSORIES	
S7510E/S7910E Fan Assembly (spare)	0231A81E
S7506E-V/S7906E-V Fan Assembly (spare)	0231A81D
S7506E/S7906E Fan Assembly (spare)	0231A81C
S7503E/S7903E Fan Assembly (spare)	0231A81A
S7502E/S7902E Fan Assembly (spare)	0231A81B
PoE DIMM	0231A48J
3COM GLOBAL SERVICES	
3Com Network Health Check, Installation Services and Express Maintenance	www.3com.com/services_quote
3Com Global Education and Training Courses	www.education.3com.com

Visit www.3com.com for more information about 3Com network solutions.

3Com Corporation, Corporate Headquarters, 350 Campus Drive, Marlborough, MA 01752-3064
3Com is publicly traded on NASDAQ under the symbol COMS.

Copyright © 2009 3Com and the 3Com logo are registered trademarks in various countries worldwide of 3Com Corporation. All other company and product names may be trademarks of their respective companies. While every effort is made to ensure the information given is accurate, 3Com does not accept liability for any errors or mistakes which may arise. All specifications are subject to change without notice.

401100-007 10/09

3com